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## **The Drinking Patterns and Problems of College Students: 1983**

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### **ABSTRACT**

A survey of 6115 college students from every state indicated that 81.9% were drinking at least once a year and 20.2% were Heavy drinkers. There was a significantly higher percentage of men, whites, first year students, individuals with low grade point averages, Roman Catholics, individuals to whom religion was not important and students attending college in the North Central part of the United States who were Heavy drinkers or experienced problems related to drinking ( $p < .05$ ).

A sub-sample composed of the same or equivalent colleges as found in a similar 1974 study, conducted by the first author, indicated almost the same percentage of students drinking (79.4% and 78.6%) and a significant ( $p < .05$ ) increase in students heavy drinking (11.6% and 16.9%). Compared to the 1974 sample there was a significant increase in problems related to drinking of "hangovers," "drinking while driving," and "missing class because of hangovers" only ( $p < .05$ ). There was no significant increase among men, blacks (of either sex), or class levels in either drinking, heavy drinking or problems related to drinking between the two time periods. However, there was a significant increase among women, and in particular white women, of heavy drinking and several problems related to drinking.

### **Introduction**

Durkheim's theory postulates that changes in social structure lead to changes in beliefs, norms and behaviors. In his classic analysis he argued that changes in the suicide rate responded to changes in social structure rather than individual psychological difficulties (Durkheim, 1951).

Over the past decade, changes in the structure of American society are apparent. They can be seen, for example, in the changing roles of women, in alternative lifestyles, and in intergroup

relations (Miller and Garrison, 1982; DeLamater, 1981; Porter and Washington, 1979). While it is reasonable to assume that changes may also be occurring in drinking among college students, there is a lack of agreement regarding the nature and extent of any such changes (Girdano and Girdano, 1976; Blane and Hewitt, 1977; Engs, 1977; Hanson, 1977; Banks and Smith; Reiskin and Wechsler, 1981; Wechsler and McFadden, 1979). Concrete knowledge of the phenomenon on a national basis is necessary not only for theoretical development but also as a firm foundation for possible social policy and campus education and prevention programs.

Thus the purpose of the study reported here is (a) to examine the drinking behaviors and experiences of a sample of college students from throughout the United States and (b) to compare the findings with those of a similar study conducted earlier in relationship to demographic varieties that have been shown to be associated with various drinking patterns.

## **Review of the Literature**

College student drinking patterns have been of increasing interest to researchers over the past three decades. Blane and Hewitt (1977) examined the incidence of drinking among collegians over time and found an increase in the mean percentage of those who had ever drunk. While some recent studies have supported this finding including Banks and Smith (1980), Girdano and Girdano (1976), Kopplin *et al.* (1977), others including Engs (1977), Hanson (1977), Tooley and Dezelsky (1978), Lavin (1980) have not.

Most studies have shown that a higher percentage of men than women drink (Rogers, 1970; Hanson, 1972; Glassco, 1975; Hockhauser, 1977; Cooper, 1981; Kaplan, 1979), but some recent investigations have not found this difference (Hanson, 1977; Banks and Smith, 1980; Reiskin and Wechsler, 1981; Hill and Bugen, 1979). Wechsler and McFadden (1976) have referred to sex differences in alcohol use among junior and senior high school students as a "disappearing phenomenon" and some recent research supports this observation at the collegiate level (Engs, 1977; Hanson, 1977; Banks and Smith, 1980; Reiskin and Wechsler, 1981). However, Blane and Hewitt's (1977) analysis of the literature led them to conclude that it was uncertain whether sex differences in incidence among collegians had changed much between 1965 and 1975.

Men are reported to consume more frequently and for in greater quantities than women (Hockhauser, 1977; Cooper, 1981; Kaplan, 1979; Straus and Bacon, 1953; Engs, 1982; Wechsler and McFadden, 1979). The only exception has been Reiskin and Wechsler's (1981) survey of students utilizing the services of a campus medical center. However, data from students at the same university who did not use the center are consistent with other studies.

All investigations which have examined drinking related problems in relation to either sex or quantity have reported more drinking problems among men and more among those of either sex who drink larger quantities (Banks and Smith, 1980; Kuder and Madson, 1976; Straus and

Bacon, 1953; Orford *et al.* 1974) except Cooper (1981) who found more freshman women to report that drinking had interfered with high school.

Studies in the 1960's and early 1970's reported that blacks had a higher rate of heavy drinking than whites (Maddox and Williams, 1968). However, some more recent studies (Engs, 1977; Kaplan, 1979) have reported black college students having lower or similar rates of alcohol consumption and problems associated with heavy drinking compared to whites.

Increased quantity and frequency of drinking with age and with college year has been documented (Rogers, 1970; Hanson, 1972; Straus and Bacon, 1953). However, recent studies have tended to report relatively little difference from the first through the fourth year (Engs, 1977; Glassco, 1975; Hockhauser, 1977; Hanson, 1974; Penn, 1974) except among women (Hope, 1972).

Widely examined has been the relationship between drinking and religious affiliation. The highest percentage of drinkers is typically found among Jewish students, the lowest among Protestants, with Catholics falling between the former two. Among specific Protestant groups, the proportion of drinkers varies by denomination and among Jews it varies by religious belief (i.e., Orthodox, Conservative, Reform and secular). While recent empirical support for these generalizations exists (Hanson, 1977; Kaplan, 1979; Engs, 1978) so does negative evidence (Banks and Smith, 1980). There are also reports indicating that there is a direct relationship between the lack of importance of religion and frequent or heavy drinking (Girdano and Girdano, 1976; Blane and Hewitt, 1977) while other reports have not shown this relationship (Banks and Smith, 1980; Reiskin and Wechsler, 1981; Wechsler and Rohman, 1981).

Over the years most studies have reported an inverse relationship between drinking and academic achievement (Engs, 1977; Kaplan, 1979; Jessor *et al.* 1968; Milman and Su, 1973) though some have not (Girdano and Girdano, 1976; Finnell and Jones, 1975).

Studies have also reported an association between geographic region of the country and drinking patterns. The frequency and quantity of drinking tends to be lower in the South compared to the rest of the country (Toohey and Dezelsky, 1978).

## **Methods**

### ***Sample***

A total of 112 four year colleges and universities were asked to participate in the study (including the same colleges sampled by the first author's 1977 report). They were selected to represent the proportions of students attending four year institutions of higher learning based on the *Yearbook of Higher Education* (1978) in terms of public or private (religiously affiliated as well as non-affiliated) racial mixtures, enrollments over and under 10,000, location in various community sizes (under 100,000, 100-500 thousand, over 500 thousand) and from all 50 states. Both the

sociology and health, physical education and recreation departments from each institution (if they had them) were asked to participate in the study.

Those departments that agreed to participate were asked to randomly distribute up to a maximum of 75 questionnaires to survey-type classes with a high probability of having students from every major and class level. From this total number of colleges 81 or 72.3% agreed to participate and returned questionnaires. From the total number of 219 departments contacted, 107 (63 from health, physical education and recreation departments and 44 from sociology) or 48.8% returned completed questionnaires. At 26 colleges respondents from both sociology and 1-PER departments were obtained.

The current sample included six institutions which participated in the 1974 study (Engs, 1977). Seven additional colleges in the present study were matched with the seven remaining institutions, of the earlier study, for comparisons between the two time periods. These colleges were matched in terms of enrollment size, geographic region, community size, racial composition, and whether they were private or state supported.

### **The Instrument**

A combined instrument which included the *Student Alcohol Questionnaire* (Engs, 1977) and the *Alcohol Attitude Questionnaire* (Hanson, 1977) was used. It contained eight demographic items, six questions for determining quantity-frequency level, 17 statements or problems resulting from drinking, 36 items concerning alcohol knowledge and 11 questions regarding norms and attitudes. All items had been previously used in earlier research by the authors (Engs, 1977; Hanson, 1977). Information concerning knowledge and norms/attitudes of the sample will be reported in separate papers.

Instructions of the precoded instrument requested anonymous responses, explained the purpose of the study, and indicated its voluntary nature as outlined by the Indiana University Human Subjects Committee Guidelines.

### **Calculations**

The quantity-frequency level (Q-F) was used to determine an individual's drinking classification. Individuals were divided into one of six categories ranging from Abstainer to heavy drinker as described in detail by Engs (1977).<sup>1</sup> For other calculations including Q-F levels for various demographic variables and percentage of drinking problems, chi-square analysis using the Statistic Package for the Social Science program was used.

### **Results**

#### **Demographic Characteristics**

The sample of 6115 students exhibited the following community and geographic characteristics: 49.3% were from colleges over and 50.7% from colleges with populations under 10,000; 85.2%, were from public compared to 14.8% from private colleges; 62.5% were from college communities under 100 thousand, 26.7% from between 100 and 500 thousand, and 10.8% from college communities over 500 thousand. Of the total schools 26.6% were in the eastern, 22.1% southern, 28.2% north central and 23.1% from the western part of the United States (including Alaska and Hawaii).

Personal demographic characteristics included 40.0% men and 60.0% women, 86.1% white, 9.2% black, and 4.7% Mexican American. Oriental, Native American Indians, and other racial groups. Of the sample 17.1% were first year, 26.7% second year, 23.5% third year and 18.1% fourth year. There was a diverse representation of majors with 21.1% from education: 17.1% health sciences (including nursing, pre-medicine and health education), 17.0% business, finance and economics; 13.0% social sciences (including sociology, psychology and pre-social work); 9.2% engineering and physical sciences; 9% Arts, general studies and humanities and 13.6% other majors.

Religious groups included 35.2% Roman Catholics, 34.3% Protestants whose religion allows drinking, 20.2% Protestants whose religion does not allow drinking, 3.5% Jews, and 6.8% none or other. Seventy-one percent considered religion important to themselves and 28.6% did not.

On the whole the percentages for these variables in the sample were similar to the percentages given by the *Yearbook of Higher Education* for institutions and students in the United States. The major exception was an overrepresentation of female students in the sample (60%) compared to female students in the country as a whole (47%).

The 1974 sample (Engs, 1977) and 1982 sub-sample were comprised of 1128 and 810 students respectively. The demographic characteristics were men, 45.4% and 39.9%; women, 54.6 and 60.1%; whites, 82.1 and 76.3; blacks, 19.9% and 23.7%; first year, 35.3 and 29.5; second year, 23.3 and 23.0; third year, 22.9 and 28.1% and fourth year, 18.5 and 19.4 respectively. There were about 5 percent more women and blacks and 5% fewer first year students in the 1982 sub-sample compared to the 1974 sample, a fact which could have possibly affected the results.

### **Drinking Characteristics**

*General:* Of the total group 81.9% drank at least once a year or more and 20.2% were considered Heavy drinkers (Table 1). Only a third (38.5%) were considered Infrequent, Light or Moderate drinkers. Beer was the most popular beverage with 76.5% consuming it once a year or more followed by distilled beverages (75.9%) and wine (65.1 %). Of drinkers, beer was consumed by 71.3% once a month or more, liquor by 62.1% and wine by 41.5% Weekly consumption of these drinks was 54.0%, 20.1% and 8.9% respectively. Less than 5% consumed any of these beverages on a daily basis.

Table II reports the percentage of students who had exhibited various types of problems resulting from drinking. Almost two thirds of the students had experienced "hangovers," over one half had experienced "driving after drinking," and over one third had experienced "nausea and vomiting," "driving after knowing they had drunk too much" or "driving while drinking" during the past year.

*Sex:* Men and women differed significantly in quantity and frequency of drinking ( $X^2 = 472.6$ ,  $df = 5$ ,  $p < .001$ ). Eighty-six percent of men and 79.1% of women drank once a year or more. Table I shows that almost three times as many men were Heavy drinkers (32.2%) compared to women (12.1%). Among drinkers there was a significant difference in the frequency of drinking beer, with 85.9% of men and 70.9% of women drinking once a month or more, 67.7% of men and 42.0% of women drinking once a week or more, and 8.3% of men and 1.8% of women drinking beer every day ( $X^2 = 391.7$ ,  $df = 4$ ,  $p < .001$ ). Among drinkers of distilled spirits there was not a significant difference between the drinking patterns of men and women. About 61% of both groups drank once a month, 20.1% once a week and .5% once a day or more.

There was, however, a significant difference in the patterns of wine drinking between the sexes ( $X^2 = 128.5$ ,  $df = 5$ ,  $p < .001$ ). Forty-four percent of women compared to 36.1% of men drank wine once a month, 10.2% of women and 6.9% of men drank wine once a week and about .4% of both sexes drank wine every day.

A significantly higher ( $p < .001$ ) percentage of males than females reported that they had experienced problems related to drinking with the exception of "losing a job because of drinking."

*Race:* Since only 286 students were of racial groups other than blacks and whites, and since the validity of results for such a small group out of the total would be questionable, they were eliminated from the calculations. A significant difference in the Q-F drinking patterns due to race ( $X^2 = 410.1$ ,  $df = 5$ ,  $p < .001$ ) was found (Table 1). Eighty-five percent of whites and 58.2% of blacks drank at least once a year and almost five times as many whites compared to blacks were Heavy drinkers (22.3% vs 4.4%). Of those who drank, significantly more whites drank beer ( $X^2 = 170.6$ ,  $df = 4$ ,  $p < .001$ ) on a monthly (80.1%), weekly (55.5%) and daily (4.6%) basis compared to blacks (52.4%, 32.3%, 3.4% respectively). Likewise, significantly more whites drank distilled spirits ( $X^2 = 110.6$ ,  $df = 4$ ,  $p < .001$ ) on a monthly (64.1%) and weekly (20.9%) basis compared to blacks (43.1% and 11.3% respectively). Wine was also consumed significantly more frequently by whites than blacks ( $X^2 = 57.3$ ,  $df = 4$ ,  $p < .001$ ) with 42.7% of whites drinking monthly and 8.9% drinking weekly compared to blacks (33.4% and 8.0%). Under .5% of both groups drank distilled spirits or wine on a daily basis.

Of all the problems resulting from drinking except "driving while intoxicated," "being criticized by a date" and "getting into problems with the school administration" a significant higher percentage of whites ( $p < .05$ ) indicated that they had experienced them compared to blacks.

*Class:* There was a significant difference in the drinking patterns of students by year in school ( $X^2 = 45.7$ ,  $df = 15$ ,  $p < .001$ ). (See Table I.) Seventy-nine percent of first year students drank at

least once a year, a percentage which increased to 84.8% of fourth year students. There was a gradual decrease, however, in heavy drinking from the first year to the fourth year of college with 22.6% of first year students and 17.1% of fourth year students being Heavy drinkers (Table 1).

There was a significant difference in the frequency of beer drinking between the classes ( $X^2 = 37.6$ ,  $df = 12$ ,  $p < .01$ ) with an increase of daily drinking from first year (3.6%) to fourth year (6.8%), though drinking on a monthly or weekly basis was similar. There was very little difference in the drinking frequency of distilled spirits. There was a significant increase ( $X^2 = 57.3$ ,  $df = 12$ ,  $p < .001$ ) in the frequency of wine consumption with 37.0% of first year compared to 49.8% of fourth year students drinking monthly, and 7.8% first year and 13.1% fourth year students drinking wine on a weekly basis.

In regards to problems related to drinking there was a significant increase in , all of the problems from first year to fourth year students ( $p < .05$ ) with the exception of a decrease in the behavior of "problems with the law," "problems with school administration," "getting into fights." From first year to fourth year students there was no significant difference among the classes in "losing a job," "being criticized by a date" or "being arrested for driving while intoxicated" among the classes.

*Grade Point Average (GPA):* There was a significant inverse relationship between both the percentage of students who drank or who were Heavy drinkers and grade point average ( $X^2 = 157.0$ ,  $df = 25$ ,  $p < .001$ ). (See Table I.) Of students who had GPA's of 4.0, only 10.7% were Heavy drinkers increasing to 37.7% for those students who had GPA's under 2.0. Among beer drinkers the lower the grade point average the more the individual was likely to drink beer on a monthly or weekly basis ( $p < .001$ ). The lower the GP A the higher the percentage of drinking distilled spirits on a weekly basis ( $p < .05$ ). For wine drinkers, on the other hand, the higher the GPA the higher the percentage of drinking wine on a monthly, weekly and daily basis with 10.7% of those with a 4.0 average down to 7.2% of those with below a 2.0 drinking on a weekly basis ( $p < .001$ ).

On the whole there was a significantly higher percentage of individuals with GPA's below 2.0 as compared to individuals with GPA's 3.5 and above who indicated they had experienced various drinking related problems ( $p < .05$ )

*Religion:* Table I shows that among the various religious groups there was a significant difference in the Q-F level ( $X^2 = 709$ ,  $df = 2$ ,  $p < .001$ ). Over 40% of Protestants whose religion does not support drinking (Mormons, Baptists, Pentecostals, etc.) down to 9.0% of Jews did not drink at least once a year. Roman Catholics had the highest percentage of Heavy Drinkers (24.2%, followed by 22.6% of Protestants (drinking permitted). Nineteen percent of other or no religious preference, 12.3% of Jews and 10.6% of Protestants (drinking not permitted). Roman Catholics and Protestants (drinking permitted) drank beer the least ( $p < .001$ ). They also drank distilled spirits and wine the most frequently.



On the whole Jews and Protestants (drinking not permitted) reported significantly lower percentage ( $p < .05$ ) of problems than Catholics or Protestants (drinking permitted). For most of the items, Roman Catholics exhibited the highest and Jews the lowest percentage. There was no significant difference between any of the religious groups concerning the problems of "arrest for driving while intoxicated," "being criticized by a date," "losing a job," "being in trouble with the school administration" or "thinking that one had a problem with drinking."

*Importance of Religion:* Among those individuals who did not consider religion important a significantly higher ( $X^2 = 282.9$ ,  $df = 5$ ,  $p < .001$ ) percentage (92.5%) drank once a year or more compared to those to whom religion was important (77.9%). Almost twice as many individuals (28.7%) who did not consider religion important were heavy drinkers compared to those to whom religion was important (16.8%). Likewise a significantly higher percentage of individuals to whom religion was not important drank beer, distilled liquor or wine more frequently than the other group ( $p < .001$ ).

A significantly higher percentage of those students who indicated that religion was not important had exhibited all the various drinking related problems with the exception of "being arrested for driving while intoxicated" and "having problems with the school administration" ( $p < .001$ ).

*Region:* There was a significant difference in the drinking patterns of students depending upon which region of the country in which they were attending college ( $X^2 = 259.0$ ,  $df = 15$ ,  $p < .001$ ). The highest percentage of drinkers was found in the East (88.9%) followed by the North Central (84.2%), West (82.4%), the South (77.5%). The highest percentage of Heavy drinkers (24.2%) was found in the North Central followed by the East (23.7%), West (19.3%) and South (14.2%). (See Table I.) Drinking of beer, wine and distilled spirits was highest in the North East and North Central part of the country. There was also a significant difference on all drinking related problems between the regions with the exception of "coming to class after drinking," "being arrested for driving while intoxicated," "being criticized by a date," "losing a job," "getting a lower grade," and "thinking that one had problems with alcohol." The higher percentage of students reporting that they exhibited problems tended to be living in the regions of the country where the highest percentage of students were drinking and reporting that they were Heavy drinkers, mainly the North East and North Central parts of the United States.

TABLE III  
Comparison of 1974 and 1975 Data in Relationship to  
Sex, Race, College Class, and Total Group.

	N	Abstain	Infrequently	Light	Moderate	Heavier	Heavy
<b>SEX</b>							
<i>Male</i>							
1974	508	16.5	7.1	9.1	20.7	26.4	20.3
1982	322	18.3	7.8	7.1	17.1	24.8	24.8
<i>Females*</i>							
1974	611	23.9	13.7	13.9	26.5	17.5	4.4
1982	486	23.5	10.7	12.8	22.4	19.1	11.5
<b>RACE</b>							
<i>White*</i>							
1974	888	16.0	11.0	11.6	24.5	24.0	12.8
1982	597	13.4	8.5	9.9	22.1	24.6	21.4
<i>Black</i>							
1974	193	39.9	9.3	13.5	21.2	11.4	4.7
1982	184	45.7	14.1	12.5	15.2	8.7	3.8

### Comparison of the 1974 and 1982 Drinking Patterns

General: Analysis of the 1974 and 1982 sub-samples indicated that there was a significant difference in the drinking patterns between the two time periods ( $X^2 = 13.4$ ,  $df = 5$ ,  $p < .05$ ). There was an increase in the percentage of students who were Heavy drinkers and a decrease in those who said they drank less than once a year or not at all (Table III). Analysis of the two time periods indicated that a significantly higher percentage of students in 1982 experienced "hang-overs" ( $X^2 = 24.3$ ,  $df = 4$ ,  $p < .001$ ), "driving while drinking" ( $X^2 = 11.0$ ,  $df = 4$ ,  $p < .05$ ) compared to the 1974 sample (Table II).

Sex: Among men there was no significant difference in drinking patterns between the 1974 and the 1982 time period in this sample (Table II). Likewise there was no significant change in any of the problems related to drinking among men. On the other hand, among women there was a significant change in the Q-F drinking patterns ( $X^2 = 22.6$ ,  $df = 5$ ,  $p < .001$ ). Though the same

percentage were drinking during both time periods (74%) there was almost a tripling in the percentage reporting heavy drinking (4.4% vs 11.5%) between the two time periods).

Moreover, there was a significant increase ( $p < .05$ ) in several drinking related problems including "hangovers" (48.3% vs 58.2%), "vomiting" (32.9% vs 35.6%), "drinking and driving" (18.2% vs 28.1%) and "missing class because of hangovers" (12.5% vs 17.1%). In contrast there was a significant decrease ( $p < .05$ ) in "coming to class after drinking" (8.2% vs 4.5%), "problems with school administration" (1.4% vs 0.2% and "causing damage to school property", (3.0% vs 1.8%) because of drinking.

CLASS YEAR											
<i>First Year</i>											
1974	380	20.8	11.8	10.5	23.7	21.1	12.1				
1982	236	27.1	10.2	10.6	18.6	15.3	18.2				
<i>Second Year</i>											
1974	251	25.1	9.6	12.7	21.5	18.7	12.4				
1982	184	21.7	10.3	8.2	20.1	22.3	17.4				
<i>Third Year</i>											
1974	246	19.1	10.6	12.2	26.4	20.7	11.0				
1982	225	19.6	8.9	12.0	21.3	22.7	15.6				
<i>Fourth Year</i>											
1974	199	15.6	10.6	13.1	20.6	28.1	12.1				
1982	135	16.1	7.1	10.3	21.3	27.7	17.4				
TOTAL											
1974	1126	20.6	10.7	11.8	23.8	21.5	11.6				
1982	810	21.4	9.5	10.5	20.4	21.4	16.9				

\*Sub samples of equivalent schools  
\*  $p < .05$

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for A.D.P.A. members is \$12.00

**Race:** Among whites there was a significant ( $X^2 = 21.9\%$ ,  $df = 5$ ,  $p < .001$ ) increase between 1974 and 1982 both in drinking (84.0% and 86.6%) and heavy drinking (12.8% and 21.4%) (see Table III). A significant ( $p < .05$ ) higher percentage of the 1982 sub-sample indicated that they had experienced problems with "hangovers" (60.4% vs 68.0%), "vomiting" (40.1% vs 42.1%) "drinking while driving" (33.8% vs 42.7%), "missing class because of hangovers" (18.0% vs 22.7%) during the previous year. Among blacks there was no significant difference in drinking patterns between the samples of two time periods (Table III) or for problems related to drinking.

Moreover there was a significant decrease among blacks ( $p < .05$ ) in "thinking I have problems with drinking" (11.4% vs 1.4%), "getting into problems with the law" (6.0% vs 0%). "cutting class because of drinking" (10.9% vs 2.1%), and "coming to class after drinking" (15.8% vs 2.1%).

Further analysis shows that among white men and, both black men and women, that there was *no* significant difference in the drinking patterns between the two time periods. For white women, however, there was a significant increase ( $p < .001$ ) both in drinking at least once a year (82.3% vs 85.9%) and heavy drinking (4.8% vs 14.4%). Furthermore, there was *no* significant change in any of the problems related to drinking for white women and black women and among black men there was a significant decrease in "driving after drinking too much" and "drinking while driving" ( $p < .05$ ). However, for the white women there was a significant increase in the same problems related to drinking as found for women as a whole ( $p < .05$ )

**TABLE II**  
Percentage of Students Who Drink at Least Once a  
Year Reporting Alcohol Related Problems  
Occurring at Least Once During Past Year

	SUB-SAMPLE		
	1974 N = 1128	1982 N = 810	1982 N = 6115
Hangover	56.2	60.7*	63.9
Driving After Drinking	49.4	48.1	52.7
Driving While Drinking	30.5	35.8+	41.7
Nausea And Vomiting	37.3	37.3	39.6
Driving After Knowing Drunk Too Much	29.9	30.9	35.3
Missed Class From Hangover	16.6	18.8+	20.1
Fight After Drinking	9.1	8.5	10.5
Criticized By Date	9.7	9.8	10.1
Damaged University Property	8.8	6.8	8.4
Know Have Problems With Alcohol	8.5	6.8	8.1
Missed Class After Drinking	10.9	8.2	7.9
Went To Class After Drinking	11.1	7.6	7.3
Received Lower Grade	4.1	3.6	4.1
Had Problems With Law	3.5	2.0	4.0
Trouble With School Administration	1.8	1.1	1.7
Arrested For Driving While Intoxicated	1.8	0.5	1.2
Lost Job Because Of Drinking	0.6	0.4	0.5

+p. < .05

\*p. < .001

*Class Year:* There was no significant change in the drinking patterns of any of the classes between the 1974 and 1982 sub-samples (Table III). Though for first year students the chi-square results were approaching significance ( $p = .052$ ) as the results show both an increase in drinking and heavy drinking. The first year students had a significant ( $p < .05$ ) decrease over time in the percentage of students "missing class because of hangovers" (14.4% vs 7.4%). Second year students reported a significant ( $p < .05$ ) increase in "hangovers" (56.6% vs 63.6%), third year students had a significant increase ( $p < .05$ ) in "driving a car after drinking" (49.5% vs 56.1%) and a significant decrease ( $p < .05$ ) in "driving a car after having too much to drink" (33.5% vs 31.4%), and fourth year students had a significant increase ( $p < .05$ ) in missing

class because of hangovers" (15.7% vs 29.8%) and damage to university property (6.7% vs 9.7%).

**TABLE I**  
Relationship of Q-F level and Sex, Race,  
College Class, Grade Point Average (GPA),  
Religion, Importance of Religion and Region of the Country.

	N	Abstain	Infrequently	Light	Moderate	Heavier	Heavy
<b>SEX*</b>							
Male	2441	13.7	6.6	6.8	14.9	26.0	32.2
Female	3655	20.9	9.7	14.4	21.5	21.4	12.1
<b>RACE*</b>							
White	5156	14.6	7.6	11.3	19.0	25.2	22.3
Black	643	41.8	13.8	11.7	17.4	10.9	4.4
<b>CLASS YEAR*</b>							
First Year	1900	20.6	7.7	10.0	16.5	22.6	22.6
Second Year	1605	16.9	8.9	11.7	19.2	22.6	20.7
Third Year	1412	17.9	8.8	12.2	19.5	22.4	19.2
Fourth Year	1086	15.2	8.1	11.5	20.8	27.1	17.1
<b>GPA*</b>							
4.0	150	30.0	7.3	14.0	22.7	15.3	10.7
3.5	1046	22.6	10.1	12.0	22.5	20.8	12.0
3.0	2356	16.4	7.8	12.7	18.6	24.7	19.8
2.5	1742	15.8	8.8	9.7	18.1	24.5	23.1
2.0	525	19.6	7.6	9.1	15.8	21.0	26.9
2.0	114	14.9	8.8	8.8	12.3	17.5	37.7

<b>RELIGION*</b>									
Roman-Catholic	2137	9.9	7.0	12.2	21.4	25.4	24.2		
Protestant (drinking allowed)	2077	13.3	8.0	12.3	18.9	24.8	22.6		
Protestant (drinking not allowed)	1224	41.4	12.3	7.8	12.9	15.0	10.6		
Jewish	211	9.0	7.6	15.2	23.2	32.7	12.3		
Other	415	17.3	7.2	10.4	22.7	23.4	19.0		
<b>IMPORTANCE OF RELIGION*</b>									
Very	4345	22.1	9.4	11.9	18.5	21.3	16.8		
Not	1740	7.5	5.9	9.9	19.8	28.2	28.7		
<b>REGION*</b>									
Northeast	1630	11.1	6.5	11.2	20.3	27.2	23.7		
Northcentral	1351	13.8	8.6	11.2	18.8	23.5	24.2		
South	1721	28.5	10.0	11.7	17.3	18.4	14.2		
West	1411	17.6	8.5	11.1	19.3	24.2	19.3		
<b>TOTAL</b>	<b>6115*</b>	<b>18.1</b>	<b>8.4</b>	<b>11.3</b>	<b>18.8</b>	<b>23.2</b>	<b>20.2</b>		

a total possible sample

\*p < .001

## Discussion

It appears that most students in this sample are drinking at least once a year and that about one-fifth are heavy drinkers. Beer was the most and wine the least widely consumed beverage. There was a slight increase in heavy drinking when a sub-sample of the same or equivalent schools were compared to the 1974 study sample. However, this change is believed to be largely due to an increase in heavy drinking on the part of white females. There was an increase

in three drinking related behaviors, namely, "hangovers," "missing class because of hangovers," and "drinking while driving." Perhaps the increase in drinking while driving might have resulted from the fact that many states have recently increased their drinking age thus causing drinking in automobiles to be considered a "safe" place to drink away from school or other authorities. The increase in hangovers and missing class because of hangovers might also be the result of increased heavy drinking and possibly rapid drinking so as to destroy the evidence. On the whole there were few increases in drinking related problems over time which supports some other recent reports (Engs, 1977; Hanson, 1977).

As many other studies have found (Blane and Hewitt, 1977; Engs, 1977; Hanson, 1977; Glassco, 1975; Hockhauser, 1977; Cooper, 1981) men tend to drink alcoholic beverages more frequently and in higher quantities compared to women. Significantly more men drank beer while significantly more women drank wine once a month or more. There was no difference in the patterns of drinking distilled beverages. Other than for the drinking related problem of "losing a job because of drinking," a significantly higher percentage of men compared to women exhibited problems related to drinking which supports findings by others (Engs, 1977; Kuder and Madson, 1976; Engs, 1982; Orford *et al*, 1974; Wechsler and Rohman, 1981).

As some other recent studies have found (Engs, 1977; Kaplan, 1979) a higher percentage of whites than blacks are drinking or are heavy drinkers. Also, on all but three problems related to drinking, whites were significantly more likely than blacks to have exhibited drinking related problems. A possible reason for this result might be the fact that a significant ( $p < .001$ ) higher percentage of blacks (58.7%) than whites (17.8%) belong to Protestant religious groups which do not approve of drink and a significantly ( $p < .001$ ) higher percentage of blacks (86.3%) compared to whites (62.0%) consider religion important in their life. It was interesting to note that between the 1974 and 1982 sub-samples that there was no increase in drinking, heavy drinking or problems related to drinking among blacks or black men or women. There was an increase, however, in heavy drinking and several drinking related problems among women and in particular white women. This supports most other recent research reports which suggest that during the past 10 years there has been an increase in drinking, heavy drinking and problems resulting from drinking among female students. Perhaps this increase in female heavy drinking and problems related to drinking is reflective of the fact that women feel it is more socially acceptable to drink because of increased career pressures, feelings of wanting to be "one of the boys", or feeling more free to admit that they have been drinking heavy because of decreased social stigma about women being drunk.

Drinking appears to have increased from one grade level to the next which supports some older studies (Rogers, 1970; Hanson, 1972; Straus and Bacon, 1953) and refutes some recent ones (Engs, 1977; Glassco, 1975; Hockhauser, 1977; Engs, 1982; Hanson, 1974). However, heavy drinking appears to have decreased among this sample from one class level to the next. Most of the problems related to drinking also increased from one grade level to the next. The exceptions were problems related to overt rowdiness such as fights and problems with the law or school administration which perhaps decreased along with the heavy drinking as the result of the

students maturing. There was no appreciable difference between the samples of the 1974 and 1982 time periods within each grade level concerning drinking problems or patterns.

The higher the grade point average the less likely the individual was to drink or to be a heavy drinker as has been found by others (Kaplan, 1979; Jessor *et al*., 1968; Milman and Su, 1973). The lower the GPA the more frequently the person was likely to drink beer or spirits. However, the higher the GPA the more likely the person was to drink wine on a monthly, weekly and daily basis. Since wine is usually associated with moderate drinking at meals, it appears that the individuals with the higher grade point averages may have, on the whole, been drinking in a more responsible manner than those with the lower GPAs who may have primarily been drinking beer and spirits in contexts other than with dinner. As others have suggested (Hanson, 1977; Engs, 1978) a person's religious preference is associated with drinking patterns. Jews are found to drink the Most frequently followed by Roman Catholics, Protestants (religion permits drinking) and Protestants (religion does not allow drinking). The heaviest drinkers were found among Roman Catholics and Protestants (religion allowed drinking) with almost twice the percentage being heavy drinkers compared to Jews or the other Protestants. A higher percentage of these two heavier drinking groups also indicated that they had exhibited various problems related to drinking. Others have suggested that even though Jews often drink the most frequently, they usually tend to have lower percentage of heavy drinkers and problems associated with drinking (Hanson, 1977). This behavior might be due to the place alcohol has in the religion and cultural values of the Jewish community.

This study also supports a few recent (Miller and Garrison, 1982; Hanson, 1977) reports which suggest that individuals to whom religion is important tend to drink less frequently, less heavily and experience fewer problems associated with drinking.

Individuals in the Eastern and North Central portion of the United States tended to drink more frequently and with a higher percentage of Heavy drinkers compared to the South and the West. In the South there was a significantly higher percentage of individuals who reported that they belonged to religious groups in which drinking was not allowed and that religion was important in their lives.

## **Conclusions and Recommendations**

Though heavy drinking and problems related to drinking is primarily a male phenomenon there was an increase in heavy drinking and problems related to drinking between the two time periods among white women in this sample. The changes in drinking patterns as suggested by Durkheim's theory may be reflective of the general changes in the social fabric and the role of women in our society. However, there does not appear to be a dramatic increase in drinking, heavy drinking or problems related to drinking in this sample as has been suggested by some school administrators (Anderson & Gadaletto, under review). As the first author stated in her 1977 report:



" 1) students may be drinking more openly than in the past because of changes during the past 15 years in state laws regarding drinking; 2) students may be discussing drinking escapades more openly with university personnel; and 3) when alcohol was found to be the drug of choice in many studies conducted during the early 1970's, university personnel may have become more aware of drinking-related problems which had existed previously but had been ignored."

These changes over the past decade may have then resulted in college administrations implementing stricter policies concerning alcohol consumption; reporting of alcohol related problems by the campus police, counseling or student health services; and supporting alcohol education programs on campuses. These activities and the focus on alcohol related problems in turn may have lead to an apparent increase in problems which had always been there.

It is recommended that individuals involved with alcohol education and policy planning for university students be aware that social changes can also change the patterns and problems associated with alcohol use and abuse in different demographic groups. Surveys of college student drinking patterns and problems need to be carried out on individual campuses before alcohol awareness programming is implemented to determine the local patterns and problems. Possible changes in drinking related problems need to be observed over time so that campus alcohol policy and programs can be augmented based on these behavior changes.

More investigations of a variety of behaviors exhibited by university students as it rejects social change needs to be carried out so that possible increases in certain types of behaviors common among university students can be predicted, i.e., sexually transmitted diseases, stress related illnesses, drug abuse, suicide, rapes, depression, student pranks, riots, etc.

## **Footnotes**

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2 Professor and Chair, Department of Sociology, State University College of Arts and Science, Potsdam, New York 13676.

3 Available from the Ralph G. Connor Alcohol Research Reference Files (CARRF), Center of Alcohol Studies, Rutgers University, New Brunswick, New Jersey 08903, and to be listed in the next edition of the CARRF inventory.

4 The Q-F for each subject was calculated from the beverage (beer, wine or distilled spirits) most frequently used and the amount consumed on a typical occasion. This placed the drinker into the category of ABSTAINER, drinking less than once a year or not at all; INFREQUENT DRINKER, drinking more than once a year but less than once a month; LIGHT DRINKER, drinking at least once a month but not more than 1 to 3 drinks at any one sitting; MODERATE DRINKER, drinking at least once a month with no more than 3 to 4 drinks, or at least once a

week with no more than 1 to 2 drinks, at any one sitting; HEAVIER DRINKER, drinking 3 to 4 drinks at least once a week or drinking 5 or more drinks at least once a month; or HEAVY DRINKER, drinking six or more at any one sitting more than once a week.

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